
Name of Organization: Great Lakes Commission

Type of Organization: Interstate Agency or Commission

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Project Title: Beachcast: Great Lakes Beaches Forecasting

Project Category: Indicator Development

Rank by Organization (if applicable): 0

Total Funding Requested (\$): 55,619 **Project Duration:** 2 Years

Abstract:

The Great Lakes Commission proposes to further develop its Great Lakes beaches website to include beach advisories, monitoring data, a proactive education and outreach section, and a pilot beachcast system that notifies users of beach conditions and precautions. In addition, the Commission will continue to add to its beach closings database with data provided by beach monitoring agencies. This resource will serve as a network for beach managers, monitoring staff, wastewater treatment staff and county health and planning department managers. It will also provide a real-time update of beach conditions. Although beach water quality tests are not available in real time. At this point, related information is adequate to assist Great Lakes residents in deciding whether to travel to the beach or not. In addition to its education/information benefits, this site could promote advocacy efforts towards increasing beach health in the Great Lakes.

Geographic Areas Affected by the Project

States:

<input checked="" type="checkbox"/> Illinois	<input checked="" type="checkbox"/> New York
<input checked="" type="checkbox"/> Indiana	<input checked="" type="checkbox"/> Pennsylvania
<input checked="" type="checkbox"/> Michigan	<input checked="" type="checkbox"/> Wisconsin
<input checked="" type="checkbox"/> Minnesota	<input checked="" type="checkbox"/> Ohio

Lakes:

<input type="checkbox"/> Superior	<input type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input type="checkbox"/> Ontario
<input type="checkbox"/> Michigan	<input checked="" type="checkbox"/> All Lakes

Geographic Initiatives:

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
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Primary Affected Area of Concern: All AOCs

Other Affected Areas of Concern:

Problem Statement:

Currently, there are a number of datasets used to assess the long-term health of beaches based on historical records. Although these are useful for trend analysis and developing prediction models, they do not assist beach goers in learning about and enjoying their beaches. However, these data do serve our monitoring and scientific community and therefore should continue to be collected and served from a common and easily accessed site.

There are a number of educational and outreach materials that have been published and posted at local beaches by county health departments or other management agencies responsible for beach monitoring. Many of these excellent brochures are not available on the web and further are not available for all beaches. "Beachcast" will gather and post (upon expert review) materials explaining why beaches are monitored, why beaches close, how bacteria affects water quality and how beach water quality can be improved.

Beach goers are, first and foremost, looking for current conditions; whether the beach is open or closed. Presently, this information is only available through the newspaper or by tuning in to local radio stations. Beachcast would link in to this information and post daily beach closings. Visitors will know if their favorite beaches are closed, and can also gain information on reasons why they are closed. Although realtime testing is not available yet, visitors to our site could look up their beach, find current weather conditions, and determine whether a trip on that day is advisable.

Proposed Work Outcome:

Beachcast will be a "home" for beach monitoring networks. There are a number of agencies that are collectively responsible for keeping our beaches clean and healthy, and these individuals need to work together and share information and data. In addition to those that manage beaches, beach goers need better access to information on beach health and would also benefit from a beach closure public service announcement. The Commission proposes to 1) Support the many Great Lakes beach related networks already established in providing a host of information and data related to their work, 2) Post beach health information to explain why beaches close and what beach goers can do about it, 3) Select a minimum of two metro areas (e.g., work with City of Chicago and Toronto) to link in to beachcast to provide realtime closure information; and 4) Continue to enhance the beach closings database with the most up to date data available.

The Beachcast project proposes the following workplan:

Task One -Network: A project network will be established, drawing from the participants and attendees of the recent Great Lakes Beaches Conference held in Chicago, February 6-8, 2001. The Commission will host continued discussion in the areas of public outreach and communications, regulatory and non-regulatory approaches, and science and technology.

This recent conference identified a strong need to bring the many existing networks together to share information and data. This group also brought forward priority action items including a region-wide notification process to disseminate water quality advisory announcements, marine conditions, and beach information.

Task Two - Enhance and Broaden Internet Presence: Building on the recently launched Great Lakes Beaches website, the Commission will post related beach information such as reviews of current and new monitoring methods, the latest information on state of the art predictive modeling, and health risks. Through this website, the Commission will promote standardization of collection methods and development of volunteer monitoring networks. In addition, the website will host related conference information and presentations for beach managers and researchers to keep up to date on recent studies and discussions.

Task Three - Beachcast: This will be a pilot effort modeled after the Florida beaches site (see <http://www.sun-sentinel.com/weather/beach.htm> under marine and tides and beach conditions) which provides a real-time beach forecast. At least two Great Lakes metro areas will be selected to participate in providing daily updates to a database which web users could access through the Great Lakes Commission's beach webpage. These updates will include whether the beach is closed or not and what the current weather is. Users would enter the beaches page and, through a map interface, select their beach. Once they find it, they can enter the relevant zip code and use the weather underground service to get a complete forecast. Each beach page would seamlessly display related information; users would not need to go back to the home page to find information on beach closures.

Task Four - Outdoor Environmental Education: The beaches site will be linked to related tourism sites currently on GLIN which include the extremely popular Great Lakes Circle Tour (recently featured in the New York Times). GLIN also hosts TEACH Great Lakes which provides an overview of Great Lakes issues in discreet modules for educational purposes. The next phase of TEACH includes environmental stewardship modules including outdoor recreational information. Beachcast would be extensively linked to TEACH.

Task Five - Mapping beaches: Currently, the beach reports provided by US EPA -GLNPO include static maps of beach locations. Commission staff have developed county based interactive maps, which would be upgraded to include individual beach locations.

Task Six - Beach trend data: The current beaches webpage includes US EPA -GLNPO reports dating from 1981 through 1994 and subsequent survey and analysis of data years 1995 through 1999. Making this data available is crucial in developing predictive models and in land use planning. The Commission would continue to support database maintenance and updates of data provided by beach managers. See <http://www.glc.org/monitoring/beaches/>.

Task Seven - Publicity and Dissemination: Through the Commission's website, Advisor Newsletter, press releases, numerous listservs, and the Great Lakes Information Network (GLIN), beachcast will be well publicized and promoted. Creating links to related Great Lakes sites will increase website access and bring a heightened awareness of the health of Great Lakes beaches and the how they need to be protected.

Task Eight - Maintenance and Update: The Commission will maintain the site with input from beach partners. This project will demand a high level of commitment and input from beach managers and researchers around the Great Lakes. The Commission will cultivate relationships with these organizations and look to them to continue their commitment to the project beyond the development phase.

Project Milestones:**Dates:**

Project Start	10/2001
Network Support	11/2001
Webpage Enhancements	01/2002
Beachcast	05/2002
Beach Trend Data (ongoing)	11/2002
Publicity and Dissemination	01/2003
Maintenance and Project Evaluation	03/2003
Project End	09/2003

☒ Project Addresses Environmental Justice

If So, Description of How:

As an Internet resource, beachcast broadens access to environmental information and public service announcements to under served communities around the Great Lakes.

☒ Project Addresses Education/Outreach

If So, Description of How:

Beachcast is designed to promote awareness of Great Lakes beaches and their sensitivities to development pressures and to help educate the public on human health issues related to beach closures and general water quality.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	27,000	1,550
Fringe:	9,450	543
Travel:	2,000	0
Equipment:	2,500	0
Supplies:	1,000	0
Contracts:	0	0
Construction:	0	0
Other:	0	0
Total Direct Costs:	41,950	2,093
Indirect Costs:	13,669	834
Total:	55,619	2,927
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

No other funding has been received. Rich Hoffmann of U.S. EPA Headquarters has agreed to supplemental funding should this proposal be of interest to U.S. EPA GLNPO. Judy Beck of U.S. EPA Region 5 has also agreed to an unspecified level of support.

Description of Collaboration/Community Based Support:

Key partners in the Great Lakes region include beach managers, monitoring staff, wastewater treatment staff and county health and planning department managers (see Great Lakes Beach Conference participants list). Other agency partners include the Great Lakes Sea Grant Network (IL-IN, MI, MN, NY, OH, PA and WI); National Park Service; U.S. Environmental Protection Agency; Great Lakes Fishery Commission; Great Lakes tribal authorities; Environment Canada; U.S. Coast Guard; and the NOAA Great Lakes Environmental Research Laboratory.